

Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-21 (Canceled).

22. (Currently amended) A method for portion cutting a food item, comprising the steps of:

scanning at least one of a shape, a structure and/or a dimension of the food item at a first cutting stage by a measuring means;

determining, using a processor, a portion-cutting profile in connection with said scanning;

cutting the food item into strips at the first cutting stage in accordance with said portion-cutting profile; and

cutting the strips into substantially quadratic pieces of predetermined weight and/or dimension at a second cutting stage, said second cutting stage cutting said strips at a direction substantially perpendicular to the cutting performed at the first stage;

wherein said step of determining a portion-cutting profile comprises determining, in consideration of waste minimization, a predetermined dimension and/or weight for the cutting-up of said food item into said strips and for the cutting-up of said strips ~~intre~~ into said substantially

quadratic pieces, on the basis of said at least one of a shape, a structure and/or a dimension of said food item; and

wherein said second cutting stage comprises two or more cutting devices having substantially parallel feeding directions.

23. (Original) A method for portion cutting a food item as set forth in claim 22, whereby said determining said portion-cutting profile comprises the step of planning the whole of a cutting sequence.

24. (Original) A method for portion cutting a food item as set forth in claim 22, whereby at least a part of said portion-cutting profile is carried out in said first cutting stage.

25. (Cancelled)

26. (Currently amended) A method for portion cutting a food item as set forth in claim [[25]] 22, wherein other scanning of the shape, structure and/or dimension of the strips is performed in the ~~one~~ two or more ~~additional~~ cutting devices of the second cutting stage.

27. (Currently amended) A method for portion cutting a food item as set forth in claim [[25]] 22, wherein a feeding direction of said ~~one~~ two or more ~~additional~~ cutting devices of the second cutting stage is different from that of a first cutting device provided in said first cutting ~~device~~ stage.

28. (Currently amended) A method for portion cutting a

food item as set forth in claim [[25]] 22, wherein at least a part of said portion-cutting profile is communicated further to one or more of the ~~additional~~ two or more cutting devices of the second cutting stage.

29. (Cancelled)

30. (Currently amended) A method for portion cutting a food item as set forth in claim [[25]] 22, wherein a feeding direction for the ~~one~~ two or more ~~additional~~ cutting devices of the second cutting stage lies substantially at right-angles to a feeding direction for a first cutting device provided in the first cutting ~~device~~ stage.

31. (Currently amended) A method for portion cutting a food item as set forth in claim [[25]] 22, further comprising the step of manually placing the food item in a first cutting device provided in the first cutting ~~device~~ stage and/or manually transferring the strips to one or more of the ~~additional~~ two or more cutting devices of the second cutting stage.

32. (Currently amended) A method for portion cutting a food item as set forth in claim [[25]] 22, further comprising the step of non-manually placing the food item in a first cutting device provided in the first cutting ~~device~~ stage and/or non-manually transferring the strips to one or more of the two or more ~~additional~~ cutting devices of the second cutting device.

Claim 33 (Canceled).

34. (Previously presented) An apparatus for portion cutting a food item as set forth in claim 41, wherein said processor is arranged to plan the whole of a cutting sequence, and thereby establish said portion-cutting profile.

35. (Previously presented) An apparatus for portion cutting a food item as set forth in claim 41, wherein said first cutting stage is adapted to carry out at least a part of said portion-cutting profile.

36. (Previously presented) An apparatus for portion cutting a food item as set forth in claim 41, wherein further measuring means are arranged in said second cutting stage for scanning at least one of a shape, a structure and/or a dimension of said strips.

37. (Previously presented) An apparatus for portion cutting a food item as set forth in claim 41, wherein the processor is arranged to send at least a part of the portion cutting profile further to the second cutting stage.

38. (Previously presented) An apparatus for portion cutting a food item as set forth in claim 41, which further comprises transfer means for transferring one or more of the strips from the first cutting stage to the second cutting stage.

39. (Previously presented) An apparatus for portion cutting a food item as set forth in claim 41, which further comprises placing means for placing the food item in the

first cutting stage.

40. (Currently amended) An apparatus for portion cutting a food item as set forth in claim 41, wherein a feeding direction ~~of one~~ the two or more cutting devices provided in said second cutting stage is different from that of a first cutting device provided in said first cutting stage.

41. (Currently amended): An apparatus for portion cutting a food item, comprising:

measuring means for scanning at least one of a shape,
a structure and/or a dimension of the food item
at a first cutting stage;

a processor for determining a portion-cutting profile
in connection with said scanning;

a first cutting stage for cutting the food item into
strips in accordance with said portion-cutting
profile; and

a second cutting stage for cutting the strips into
substantially quadratic pieces of predetermined
weight and/or dimension, said second cutting
stage cutting said strips at a direction
substantially perpendicular to the cutting
performed at the first cutting stage;

wherein said processor is adapted to determine said
portion-cutting profile in consideration of waste
minimization and predetermined dimension and/or
weight for the cutting-up of said food item into
said strips and for the cutting-up of said strips

into said substantially quadratic pieces, on the basis of said at least one of a shape, a structure and/or a dimension of said food item;
wherein said second cutting stage comprises two or more cutting devices having substantially parallel feeding directions.

42. (Cancelled).

43. (Currently amended) A method for portion cutting a food item, comprising the steps of:

determining at least one physical attribute of the food item using a measuring device;

determining, using a processor, a portion-cutting profile utilizing said at least one physical attribute and a desired physical attribute;

first cutting the food item into strips at the first cutting stage by cutting in a first cutting direction, said cutting performed in accordance with said portion-cutting profile; and

second cutting said strips into substantially quadratic pieces of the predetermined physical attribute at a second cutting stage by cutting in a second cutting direction, said second cutting direction being substantially perpendicular to said first cutting direction;

wherein said second cutting stage comprises two or more cutting devices having substantially parallel feeding directions.

44. (Previously presented) The method of claim 43, wherein said second cutting is performed at the second stage also in accordance with said portion-cutting profile and said portion cutting profile is determined in advance of both said first cutting and said second cutting.